

# Putting the Heritage Value of Agricultural Landscapes to Work for a Sustainable Future

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**ABSTRACT** The heritage value of agricultural landscapes is an area of cultural landscape practice receiving renewed attention worldwide due to the current surge of interest in place-making, heritage tourism, food security, sustainable agriculture, and large-scale landscape conservation. Compared to many other countries, agricultural landscapes in the U.S. remain underrepresented in heritage recognition programs and are not widely embraced as a heritage conservation priority. In this context, international conservation practice offers ideas for integrating heritage values into strategies for environmental, economic, and social sustainability. This review of U.S. and international initiatives demonstrates that the time is right for new strategies recognizing the full value of agricultural landscapes. To advance conservation of designated agricultural landscapes and their rural contexts in the U.S., this paper recommends that the National Park Service (NPS), in collaboration with a diverse array of partners, create a "Rural Heritage Agenda." This ambitious undertaking will more consistently link recognition of heritage values with community-led efforts for conservation of U.S. agricultural landscapes.

**KEYWORDS** Cultural landscapes, agricultural landscapes, heritage values, rural communities, historic preservation, conservation, international

## CONVERGENCE OF HERITAGE VALUE AND AGRICULTURAL LANDSCAPES

The heritage value of agricultural landscapes is an area of cultural landscape practice that is receiving renewed attention worldwide due to a surge of interest in place-making, and authenticity, and the growing use of heritage tourism as an engine for rural economic regeneration.<sup>1</sup> More attention is being paid to food security and maintaining or re-creating regional food systems in response to serious concerns about the sustainability of current agricultural systems and policies (Mitchell and Barrett 2015; Community Food Security Coalition n.d.). The renewed value of local foods is contributing to regional economic vitality by helping to re-localize agriculture and develop place-branded products. Rediscovering agricultural traditions and associated agrobiodiversity helps to integrate the preservation of working landscapes with long-term sustainability goals. Increasingly, the nature conservation community is recognizing the contribution of working landscapes to large-scale landscape conservation. Advocates also understand the importance of engaging local communities when building a commitment to both natural resource and cultural heritage conservation (Barrett 2015).<sup>2</sup>

The confluence of these trends in the U.S. sets the stage for experimentation with new initiatives linking recognition of heritage values with successful community-led efforts on agricultural landscapes. National parks and other protected areas are finding creative ways to work with partners to highlight heritage values and traditional knowledge while continuing agricultural land uses and advocating sustainable practices. While sustaining agricultural systems represents unprecedented conservation challenges, these initiatives demonstrate the potential for

innovative partnerships between related fields such as land use planning, land conservation, food networks, and rural economic development. They also offer multiple benefits by advancing environmental, economic, and social sustainability.

While agricultural and rural landscapes are an emerging dimension of U.S. historic preservation, they remain underrepresented in U.S. heritage recognition programs and are not as widely embraced when compared to many other countries. There is, in fact, a wealth of international experience with a variety of programs that provides an opportunity for the U.S. to adapt new ideas to agricultural landscape conservation and management. Societal trends, current challenges, a growing body of experience, and partnership opportunities make this realm a compelling area of interest for cultural landscape conservation.

The following review of several U.S. and international programs and policies demonstrates a need for new approaches that recognize the full value of agricultural landscapes and integrate their heritage values into broad strategies for conservation and community development. To advance this work, this paper advocates a multifaceted “Rural Heritage Agenda” promoting conservation of designated agricultural landscapes as well as their rural contexts through a collaboration of the National Park Service (NPS) and a diverse array of partners. This ambitious undertaking will more consistently link recognition of heritage values with community-led efforts for conservation of U.S. agricultural landscapes.

## THE U.S. APPROACH

Over 40 percent of the lower U.S. is used for agriculture. While agricultural practices have powerfully shaped the land over time and created some of the nation’s most iconic places, compared to many other countries—particularly those in Europe—U.S. agricultural landscapes remain largely unrecognized as heritage resources. Only limited guidance is available for evaluating the historic significance of this type of cultural landscape, and even less for managing these lands for their heritage importance. Since evaluating and managing living landscapes is a complex undertaking, it is important to review the current U.S. framework.

## U.S. Framework for Evaluating and Managing Agricultural Heritage

In the U.S., the NPS has provided leadership for the recognition of cultural landscapes, resulting in a variety of designations based on the historical significance of rural and agricultural areas. This recognition has not been without challenges due to property interests, the scale of agricultural landscapes, and the limitations of applying static preservation management schemes to large and dynamic market-driven landscapes. In addition, other federal agencies involved with agriculture have generally not recognized the heritage values of these landscapes in their programs or policies.

The NPS administers the National Register of Historic Places (NRHP) that establishes criteria for evaluating cultural heritage significance (NPS NRHP n.d.). These criteria apply both to resources within the national park system, as well as other historic properties. In the mid-1980s, the NPS began developing additional guidance specifically for cultural landscapes. In 1990, *National Register Bulletin 30* provided guidelines for preserving rural historic landscapes, including agricultural landscapes, defined as:

A geographical area that historically has been used by people, or shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features (McClelland et al. 1990, 1-2).

Evaluating significance relies on historic context for comparative analysis; however, this context is often lacking for agricultural landscapes (NPS 1985). In the late 1990s, the NPS initiated an historic context study for agricultural landscapes within the national park system. The report describes important historical developments in American agriculture and identifies national parks representing various areas of significance (Westmacott et al. 1996). Unfortunately, this report is still in draft form and not widely available. A more recent agriculturally related historic context study examines national park fruit and nut orchards in the larger context of American horticulture (Dolan 2009); this report has wide application in the national park system and beyond and can serve as a model for evaluation.

A number of state historic preservation offices partnering with the NPS in administering the NRHP have developed statewide historic context studies for agriculture. In 1999, Minnesota prepared a report that provides a method for identifying significant landscapes and describes tools useful in their protection (BRW 1999). Between 2001 and 2012, Pennsylvania prepared a comprehensive agricultural context study featuring histories of different farming systems around the state, a field guide to historic farm buildings and landscapes, and bibliographic resources (Pennsylvania Historical and Museum Commission n.d.). Yet even with this extensive guidance, Pennsylvania has only nominated a handful of agricultural resources to the NRHP.

As the distinctive agricultural landscapes of the U.S. have helped to shape its national character, the national park system should represent the full breadth and significance of U.S. agriculture. According to various assessments, twenty-five percent of national parks contain cultural landscapes significant to agricultural history (Westmacott et al. 1996, Marts 2013). While a number of these parks recognize or actively manage agriculture as part of their historic or cultural value, many of these efforts are small in scale.

The forty-nine National Heritage Areas (NHAs) are large lived-in landscapes, mostly in rural areas, and collectively include a wide range of the nation's diverse stories associated with agriculture (NPS National Heritage Areas n.d.). Each area is designated by Congress and the NPS provides some funding and technical assistance. For the NPS, these areas represent successful examples of using a community-driven approach that incorporates public/private partnerships in conserving a large landscape (Barrett and Mitchell 2003, National Park System Advisory Board 2006, Laven et al. 2014).

### **Challenges of Recognizing and Managing Agricultural Heritage in the U.S.**

There are many challenges in the conservation of agricultural heritage. Although many national parks and NHAs contain agricultural resources, recognizing and managing agricultural heritage is usually not the primary administrative focus. There are significant gaps in knowledge of the history of agriculture and limited historic context analysis, as described previously. Agricultural history, a potential foundation for

heritage designation, is not an active research area. Economic historian Peter Cocalanis has noted that “Farming and farmers don’t get much attention, much less respect in American academic circles any more” (Cocalanis 2002, 3–4). While he attributes this trend, in part, to the shrinking economic impact of agriculture and the relatively small size of the farm labor force, there are also practical barriers, such as the vast scale of many agricultural enterprises. The significance of many of these landscapes lies in the component parts of a working landscape system that often extends over a very large area. Additional challenges relate to inventorying and identifying significant landscapes at a regional scale, dealing effectively with property rights issues, and addressing concerns about designation as a regulatory burden.

Hovering in the background are reservations about long-term management. Agricultural landscapes are, by their very nature, dynamic. They continue to evolve to meet market conditions, often resulting in physical change to defining characteristics such as field patterns and farm buildings. This malleability does not fit neatly into traditional historic preservation strategies, and very little management guidance addressing the limits of acceptable change is available (Mitchell and Melnick 2012, Dolan 2015). Generally, historic preservation tenets seek to minimize resource change in order to retain the authenticity and material integrity of a property’s important characteristics (NPS NRHP n.d.). As has been noted, “a significant agricultural landscape is a unique combination of nature and culture, and a farm is simultaneously an ecosystem, social system, and economic system” (McEnaney 2001, 43). Sustaining the integrity and economic viability of a continually evolving system is a daunting task.

Lack of knowledge about agricultural history, the scale of agricultural landscape resources, as well as practical implications for resource management, have undoubtedly limited the designation of agricultural landscapes. In order to advance identification and conservation of heritage values of agricultural landscapes, it is important to learn from those parks and programs that have met with some success in conserving agricultural resources.

### **U.S. National Parks Test Innovative Approaches**

A number of national parks have taken initiatives to actively preserve and communicate the value of



**Figure 1**  
A farmers' market located within Cuyahoga Valley National Park (Ohio) supports farming that continues the historical agricultural legacy and contributes to community vitality. (Used with the permission of the Cuyahoga Valley Countryside Conservancy; photograph by Gary Whipple.)

agricultural heritage resources (Diamant et al. 2007). These parks have encouraged continuing traditional uses or simulated uses that simultaneously demonstrate sustainable practices and engage the public through related programs. Dolan recently observed that "Conservation through traditional use is a relatively untapped strategy in the NPS cultural landscapes toolbox" (2015, 259). Even so, while the number of national parks demonstrating this type of innovation is still small relative to those parks with significant agriculture, both the number of programs and level of the sophistication are growing (Cowley 2015, Dolan 2015, Mitchell and Barrett 2015). Most importantly, these initiatives demonstrate the value of interpretive programs and leverage their educational impact through partnerships.

Canyon de Chelly National Monument (NM) in Arizona is an instructive example of continuing traditional uses; in this case, by the traditional managers. Owned by the Navajo Nation since its establishment in 1931, the park is co-managed through an agreement with the NPS (Canyon de Chelly NM n.d.). Today, the canyons remain home to Navajo families, who continue to farm, plant orchards, and raise livestock as they have since the 17th century (Travis 2005, Brown 2008).

Cuyahoga Valley National Park (NP) in Ohio preserves the rural landscape along twenty miles of the Cuyahoga River and the Ohio and Erie Canal. Many of the small towns, villages, and farms of this nineteenth century landscape still exist today (Cuyahoga Valley NP n.d.). After the park was established in 1975, farming declined, and concerns mounted that the

valley's agricultural character was being lost. While the primary emphasis of park management was natural resources, it also recognized the significance of agriculture to the park's narrative. Drawing on experience with working agricultural landscapes in Europe, the national park, in partnership with a new nonprofit Countryside Conservancy, developed an innovative historic leasing program (Countryside Conservancy n.d.). Farming has been reintroduced by leasing historic farmsteads on over 1,200 acres in the 33,000-acre park with requirements for sustainable agricultural practices and educational visits (Kelsey 2002). Farmers' markets provide an outlet for food and crafts produced by the farms in the park and in the region and make quality food available to residents, while park visitors learn about rural heritage and contemporary stewardship (Figure 1). The Conservancy's programs also contribute to local food systems in other ways by helping farmers find land and build connections with chefs, providing access to food for low-income community members and contributing to the development of Ohio's food policy (August and Crumley n.d.).

The 550-acre forest at Marsh-Billings-Rockefeller National Historical Park (NHP) in Vermont, the oldest professionally managed woodland in the U.S., is both a significant cultural landscape and a natural system (Marsh-Billings-Rockefeller NHP n.d.) (Figure 2). To tell this forest's story while preserving its historic character, the park actively manages the forest. The management plan for this culturally significant forest broke new ground since, at that time, there were no guidelines available for this dynamic ecological cultural landscape (Diamant, Marts, and Mitchell

**Figure 2**

The 550-acre forest at Marsh-Billings-Rockefeller National Historical Park in Vermont is both a significant cultural landscape and a natural system. (Used with permission; photograph by Nora Mitchell.)



2006, Mitchell 2008). Today, the park interprets the landscape's history, demonstrates principles of contemporary adaptive forest management, and annually achieves third-party certification by the international Forest Stewardship Council (Forest Stewardship Council n.d.). In addition, management of this cultural forest builds partnerships throughout the region, engaging the local community, schools, and park visitors.<sup>3</sup>

As these case studies demonstrate, continuing or renewing agricultural use on NPS sites offers rich benefits: it increases recognition of working cultural landscapes, interprets forest history, models sustainable practices, and serves as a venue for public dialogue on current issues such as regional food systems, food security, and climate change adaptation and resilience.

### **Partnerships for Conservation of Large Agricultural Landscapes**

Through a number of programs, including NHAs and the NRHP, the NPS offers technical and financial assistance to recognize historic resources and assist rural communities with revitalization. But can these approaches be adapted for the conservation of a region's agricultural heritage? The following two case studies from Pennsylvania and Iowa demonstrate the potential of local communities working with these NPS programs to preserve agricultural heritage on large rural landscapes.

### **Oley Valley national register historic district.**

The Oley Valley in Pennsylvania is an exceptional example of heritage designation, in this case listed in the NRHP and serving as a catalyst for resource conservation. By the 1700s, the valley's fertile limestone soils attracted English Quakers, French Huguenots, and Palatine farmers from Switzerland and Germany in search of religious freedom and suitable farmland (Pennsylvania Historical and Museum Commission n.d.). Over time, Pennsylvania German customs, specifically kinship-based shared tenancy, shaped the landscape, producing a distinctive pattern of farmsteads, fields, and cultural practices (Hopkins 1982) (Figure 3). Today the valley has more than 150 extant farm complexes, including dozens of eighteenth-century farm buildings, a covered bridge, burial grounds, and gristmills. The valley's building stock is primarily comprised of Germanic-influenced farmsteads with a high proportion of limestone houses, a wide variety of early barns, and intact stone outbuildings, some featuring early clay tile roofs. Hedgerows, farm roads, and property boundaries, some dating to land grants from the time of William Penn, still demark the land (Hopkins 1982).

In 1979, the nonprofit National Trust for Historic Preservation launched a Rural Preservation Program to provide training and technical information to local communities. The goal was to link historic preservation with broader planning and environmental issues. Accordingly, the Trust selected Oley Valley as one of its demonstration projects. Working with the Pennsylvania State Historic Preservation Office, the Trust oversaw the effort but relied heavily on volunteers to



**Figure 3**  
 Pennsylvania German traditions produced a distinctive pattern of farmsteads, fields, and cultural practices in the Oley Valley National Register Historic District. (Used with permission; photography by Zachary Pyle.)

identify local issues and coordinate preservation efforts (Stokes, Watson, and Mastran 1997). Inventory work advanced the then-radical idea of listing the entire Oley Valley Township, an area of nearly twenty-five square miles, in the NRHP. Unusual for its time, the nomination documented the valley's landscape characteristics as well as its architectural and historical significance. In 1983, the Oley Valley was officially listed in the National Register.

Working with the Trust, the Oley Valley community developed strategies to conserve the historic characteristics identified in the NRHP nomination, incorporating them into the township's planning, local zoning ordinances, and farmland preservation initiatives. The township applied the Pennsylvania Historic District Act of 1967 to preserve historic buildings erected before 1940 and adopted zoning provisions limiting development in the agricultural districts comprising most of the township. The township took advantage of Pennsylvania's well-funded Agricultural Preservation Program to acquire conservation easements. By 2012, over six hundred farms and over 64,000 acres—about half of the farmland in Oley Valley—had permanent protection through agricultural conservation easements (Pyle 2012).

From the beginning, the Oley Valley community was actively engaged in the project; for example, local residents did much of the survey work and founded the Oley Valley Heritage Association in 1984 to raise funds for a new comprehensive plan to incorporate the historic designation and agriculture into local land use policies (Oley Valley Heritage Association n.d.). The Association is still active and has championed efforts

to defend low-density agricultural zoning, preserve the township's last covered bridge, and prevent landfill discharge into local streams (Pyle 2012).

Recent research documenting the Oley Valley initiative's long-term success shows that qualities identified as historically significant in the 1983 nomination still characterize Oley's landscape thirty years later. Also, this research confirms how critical it was to interweave historic preservation, agricultural conservation, good land use planning, and environmental protection (Pyle 2012). The Trust's approach was correct: this project was successful due to dedicated community engagement (Watson 2014).

#### **Silos and smokestacks national heritage area.**

Silos and Smokestacks NHA in northeastern Iowa is the preeminent example of a place telling the story of American agriculture. Located in what once was the tall grass prairie, farming has deep roots in the region's exceptionally fertile soils (Figure 4). In the twentieth century, technological changes such as seed hybridization, food processing and preservation, and widespread mechanization expanded agricultural production, helping to supply world markets with food and grain (Silos and Smokestacks NHA 2003). However, as with many agriculturally based economies, the region was buffeted by fluctuations in the national and world markets. By the end of the twentieth century, farm families and regional urban centers were struggling. The farming population was aging, prime agricultural land was falling out of production, and farm consolidation was both changing the appearance of

**Figure 4**

Farming has deep roots in the Silos and Smokestacks National Heritage Area in northeastern Iowa's agricultural landscape. (Used with the permission of Silos and Smokestacks National Heritage Area)



the landscape and disrupting community vitality (Silos and Smokestacks NHA 2005).

In 1996, Congress designated a 37-county area as America's Agricultural Heritage Partnership based on a 1995 NPS study, which determined that northeast Iowa made significant contributions to the story of national and international agriculture (NPS 1995). The legislation created a local management entity with representatives from volunteer associations, private businesses, and state and local political subdivisions. The entity's role was to coordinate programs to interpret and promote the natural and cultural resources that contributed to the region's significance. As in other NHAs, the initiative was to be managed locally with the NPS providing financial and technical assistance (Silos and Smokestacks NHA 2005).

Establishing Silos and Smokestacks NHA was not without challenges, including the daunting scale of the initiative, which covered over 20,000 square miles. Another challenge was the rural agrarian culture of the area, which places a high premium on self-reliance. Community members harbored concerns about the national government's role. An additional challenge was limited funding. Despite these obstacles, the NHA built a strong partnership network that together interprets the area's agricultural story in a way that respects the area's traditional values of independence and volunteerism. This partnership network's primary goals are to add economic value through increased heritage tourism and to effectively communicate the story of the agricultural landscape to residents and visitors.

Over the past ten years, these strategies have proven effective at Silos and Smokestacks. The area

has 108 formal partnerships with existing, valued community assets, which in turn strengthens the sense of regional identity. The NHA has built the capacity of partner sites and museums with grants, workshops, and technical assistance (Silos and Smokestacks NHA n.d.). A recent evaluation documented that annually over three million people visit sites in the NHA. One thousand people have participated in the heritage area's training programs, and there have been 500,000 visits to the award winning web-based "Camp Silos" (Helba, Preethy, and Jones 2012).

This NHA owes its success, in part, to adapting its programming in response to the community's expressed desire for an educational program with a focus on the history of farming, reading the landscape, and the impact of agricultural programs and policies. Overall, the NHA's strategy of being responsive to community-based needs has overcome residents' initial concerns about governmental designation and outside control of agricultural resources. Fundamental to this strategy, the NPS has served as a partner offering guidance, limited funding, and strong brand recognition. Importantly, this nationally significant cultural landscape is managed by the people who live there.

These instructive case studies from Pennsylvania and Iowa offer tested, on-the-ground examples of conservation of agricultural landscapes in the context of issues that face many rural areas. What distinguishes these heritage initiatives is not merely their size, but application of the best heritage preservation information and techniques along with community leadership dedicated to a conservation approach. In the Oley Valley, the National Trust's Rural Preservation

initiative offered expertise and ideas to a community deeply committed to its agricultural heritage. Over time, the community often referred to the value of their National Register nomination in terms of the documentation it provided, but strictly enforced zoning laws and farmland preservation easements delivered the most effective preservation outcomes (Pyle 2012).

The NHA in Iowa provides an example of the effectiveness of collaboration in preparing and implementing a regional management plan (NPS Heritage Areas n.d.). In this case, a management entity provided a central coordinating hub for a partnership network that has proven to be an important governance strategy for large-scale efforts (Laven et al. 2015). Evaluations, such as the one completed for Silos and Smokestacks, can help identify best practices in partnerships and adaptive management for large regional initiatives (Helba, Preethy, and Jones 2012). There is a continual need to evaluate, learn from, and scale up this work on large landscapes in order to become more sophisticated in building and sustaining partnerships with diverse constituencies, whether working with tribes, nonprofits, or the private sector.

## **INTERNATIONAL PROGRAMMATIC APPROACHES**

Internationally, there are a variety of program and policy frameworks for recognizing heritage values and managing agricultural landscapes, often within their regional rural context. While a comprehensive treatment of these frameworks is beyond the scope of this paper, the following selected examples describe well-established programs and demonstrate the growing importance of agricultural landscape conservation in many countries around the world. These examples range from national programs and policies in Europe to several international conservation programs, each addressing the multiple values of agricultural heritage and reflecting the urgent need to re-invent agricultural systems to make them more sustainable (Mitchell and Barrett 2015).

### **National Programs for Designation and Conservation of Working Rural Landscapes**

Many European countries have created programs to designate and conserve nationally important working rural landscapes. In both the United Kingdom and France, these designation programs focus on conservation of large-scale living landscapes, recognizing the

critical role people have played and continue to play in shaping the landscape and conserving its natural and cultural values. In England and Wales, there are two designations for conserving large-scale working landscapes: national parks and Areas of Outstanding Natural Beauty (AONB) of which 13 and 38 have been designated respectively. Designated an AONB in 1966, the Cotswolds is one of the country's most iconic rural landscapes. Eighty-six percent of this extensive, 790-square-mile landscape is in agriculture. Although farming continues, it faces pressure from increasing tourism, second home development, decreasing numbers of farmers, and overall restructuring of the farming sector (Cotswolds AONB n.d.). A locally established conservation board facilitates multi-sector conservation efforts, including protecting the AONB's visual character, and offers programs to conserve rural lifeways. There are, for example, programs that promote and support locally produced agriculture products. A new brand, "Cotswolds Choice," recognizes environmentally produced local products whose sale helps protect the landscape. Grant funding for sustainable projects is also available to farmers and growers.

In France, Regional Nature Parks are primarily working rural landscapes with exceptional scenic, cultural, and natural resources. The vast majority of these parks include an agricultural component. The Loire Anjou Touraine Regional Nature Park, in the middle Loire Valley, helps conserve the cultural landscapes along this major river valley known for market gardens, vineyards, and orchards. The park encourages cultural and natural resource conservation as well as sustainable economic development (Loire Anjou Touraine Regional Nature Park n.d.). Low-lying pastures along the river, or "bocages," are distinctive features, which provide space for agriculture and also serve as a floodway in high water. This park, like all French Regional Nature Parks, is managed by a consortium of local government leaders and representatives of regional councils.

These models in Great Britain and France represent years of experience designating and conserving large working landscapes including the provision of technical and financial support to rural communities (Barrett and Taylor 2007). As in NHAs in the U.S., a multi-year, multi-objective approach coordinated by a local board ensures that these programs engage local residents. The French and British programs also



support economic revitalization in the form of heritage tourism, new markets for locally produced food, and other compatible economic opportunities.

### **International Recognition Programs for Agricultural Landscapes**

In addition to national programs in the U.S. and abroad, there are a variety of international designation programs that recognize the cultural value of agricultural landscapes and motivate conservation. Since 1992, the UNESCO World Heritage Committee has recognized cultural landscapes as eligible for the World Heritage List (UNESCO World Heritage Centre n.d.). Today, the list includes many agricultural landscapes such as the vineyards of Hungary's Tokaj wine region and China's Honghe Hani Rice Terraces (Tricaud 2013). In addition, the International Union for the Conservation of Nature (IUCN) has, for many years, recognized protected landscapes and seascapes as Category V in their management system. This designation also recognizes the importance of human and environmental interactions that sustain bio-cultural diversity, including agrobiodiversity, as well as cultural and spiritual values (IUCN n.d.). In these working landscape designations, the continuity and vitality of cultural systems and traditional production have shaped characteristic patterns of land use, generating a distinctive sense of place. While international recognition provides an impetus for conservation, many challenges remain when it comes to preserving the traditional uses that shaped agricultural landscapes. Additionally, sustaining rural livelihoods will require a full analysis of successful case studies (Brown, Mitchell, and Beresford 2005; Mitchell, Rössler, and Tricaud 2009; Denyer 2015).

The World Network of Biosphere Reserves, part of UNESCO's Man and the Biosphere Programme, is an important global network of protected terrestrial, marine, and coastal ecosystems, each to be nominated by the appropriate national government (UNESCO Man and Biosphere Programme n.d.). Biosphere reserves are generally large in scale, many with considerable agricultural uses such as cropping, livestock herding, and forestry. The mission of reserves is both to conserve natural and cultural resources and to support economic change by providing good examples of sustainable agriculture and biodiversity conservation. While there are 651 biosphere reserves in

120 countries, including 15 transboundary sites, there are only 47 such designations in the U.S.—many of which are inactive.

In 2002, the Food and Agriculture Organization of the United Nations (FAO) launched an initiative on Globally Important Agricultural Heritage Systems (GIAHS) defined as “remarkable land-use systems and landscapes rich in globally significant biological diversity that have evolved from the co-adaptation of a community with its environment and its needs and aspirations for sustainable development” (FAO GIAHS n.d.). This program aims to identify and safeguard landscapes with heritage value, including agricultural biodiversity and knowledge systems, by raising awareness and supporting conservation and sustainable management. With growing concerns over food security and climate change, ancestral knowledge and agrobiodiversity offer agricultural innovations for developing a more sustainable agriculture (Altieri and Koohafkan 2013).

### **European Policies for Agricultural Landscapes**

As a complement to the designation of valued landscapes, the 2000 European Landscape Convention (ELC) is a first of its kind agreement that advances European cooperation on research, planning, and management of the everyday landscape (Council of Europe n.d.). Importantly, the Convention defines landscape broadly as an “area as perceived by people, whose character is the result of the action and interaction of natural and/or human factors” (Council of Europe n.d.). This definition includes local identity, customs, habits, values, and beliefs (Oles and Hammarlund 2011). The Convention specifies the use of transparent, participatory, and democratic processes to ensure that everyone has the right to input in decisions affecting their landscape.

To date, 38 of the 45 member states are signatories and consequently assume responsibilities that include recognizing landscapes in national legislation, enhancing public education, and identifying and evaluating landscapes. Some countries have conducted nationwide landscape surveys to better understand landscape characteristics and current threats (Council of Europe n.d., Article 6). These surveys have encouraged research across national boundaries. For example, UNISCAPE, a network of over fifty European universities and related

organizations, supports implementation of the ELC through research and education (UNISCAPE n.d.). This vibrant research network is supplemented by organizations and projects such as Landscape Research Group, Landscape Europe, Permanent European Conference for the Study of the Rural Landscape, and the HERCULES project (Landscape Europe n.d.; Landscape Research Group n.d.; Permanent European Conference for the Study of the Rural Landscape n.d.; HERCULES n.d.).

Europe is well known for rural development policies that emphasize community well-being, economic vitality, and equity. A recent comparative study of rural policies in the U.K. and the U.S. noted a shift towards increased recognition of the multiple benefits of agriculture and rural areas (Shucksmith et al. 2012). This emerging perspective recognizes that agriculture provides many services in addition to food production such as environmental quality, the provision of open space, and recognition of cultural heritage. In the 1990s, European Union policies began to reflect this shift by emphasizing the “multifunctionality of agriculture that contributes to the sustainability and vitality of rural areas” (Brasier et al. 2012, 197).

### **International Programs Support Sustainability of Traditional Agricultural Landscapes**

Two recent international initiatives recognize, support, and learn from traditional agricultural landscapes. The initiatives not only demonstrate sustainable practices, they also preserve cultural heritage. The value of diverse, traditional *satoyama* landscapes of Japan, characterized by sustainable land and sea practices, inspired the International Partnership for the Satoyama Initiative (IPSI n.d.). Since 2010, IPSI has promoted international collaboration for the recognition, conservation, and restoration of sustainable human-influenced landscapes. Referred to as “socio-ecological production landscapes and seascapes” (SEPLS), these places are increasingly valued for sustainable practices. Unfortunately, several of those landscapes are threatened in many parts of the world. The IPSI, with over 140 members, is an international platform for organizations across sectors to share knowledge, engage in dialogue on international policies, and cultivate collaborative projects among members.

The Farm and Forest Facility (FFF), a program of the FAO launched in 2012, supports organizations of local forest and farm producers. The program is intended to provide a forum for sharing experiences to help improve livelihoods, secure land tenure, expand markets, and engage in policy advocacy (FAO FFF n.d.). Through FFF, these producer organizations, comprised of small landholders, community members, and Indigenous peoples, bring their knowledge, cultural traditions, and perspective to inform local and national policy discussions. By focusing on rural institutions, FFF programs directly address problems of poverty, inequity, and unsustainable agricultural land management.

The FFF and IPSI illustrate the value of learning from on-the-ground practice, supporting those practitioners, sharing successful strategies through networks, and improving policies and guidelines based on evaluation of practical experience. The IPSI emphasizes that agricultural landscapes are shaped and sustained by socio-ecological-cultural systems. The FFF addresses rural social challenges by drawing on the knowledge of practitioners and building capacity at the regional landscape level.

These examples demonstrate the wide range of international conservation strategies being used to recognize and conserve rural and agricultural landscapes. These approaches both validate the growing importance placed on the heritage values of agricultural landscapes and offer fresh ideas for consideration in the U.S. American practitioners can learn from and adapt lessons from this extensive experience to enhance the effectiveness of conservation of U.S. agricultural landscapes in their rural context. It is hoped that by advancing sustainable agriculture practice in the U.S., Americans might derive multiple social benefits from the cultural heritage of these iconic resources.

### **CRAFTING A NEW FRAMEWORK**

It is time for heritage practitioners in the U.S. to get on board with larger trends, form new partnerships, and learn from international models. So what are the most immediate actions needed to advance conservation of agricultural heritage? And which new partners, policies, and funding can best support and sustain this initiative? An important first step is for the NPS to

work with key partners to develop a “Rural Heritage Agenda.”

As agriculture is a component of a quarter of all national parks—including indigenous sites, battlefields, cattle ranches, and forests—conserving this type of cultural landscape is important. Additionally, agriculture is important to the 49 NHAs and to the NRHP programs in all 50 states. Though the National Park System’s total agricultural acreage is not large, national parks and NPS programs can have a powerful impact by communicating key issues, demonstrating sustainable practices, and working in partnership networks to benefit regional landscapes. A Rural Heritage Agenda, developed by the NPS through collaboration with other agencies, organizations and institutions, could serve as a catalyst to transform conservation of the heritage values of agricultural landscapes in their rural context. A Rural Heritage Agenda would be a strategic counterpart to the current NPS *Urban Agenda*; it will inspire a new community of practice that will inspire and inform citizens and save valuable agricultural resources (NPS 2015).

A Rural Heritage Agenda will:

1. *Learn from and share successful examples of conservation of the heritage values of agricultural landscape and improve existing policy and guidelines to encourage and support agricultural initiatives.*

Distill and share effective practices from innovative projects in national parks such as Marsh-Billings-Rockefeller forestry program and Cuyahoga Valley farm program. Encourage innovation, adaptation, and evaluation of management approaches to proactively conserve these dynamic resources. Recognize and document successful programs for agricultural landscapes, as in the NPS publication, *Stewardship Begins with People* (Diamant et al. 2007). Review NPS policies and management guidelines, revising as needed to encourage new collaborative agricultural conservation efforts. Study exemplary NHAs as well as the National Trust’s Rural Preservation program successes. Examine ideas from international practice and programs such as

World Heritage Cultural Landscapes, IUCN Protected Landscapes, and Biosphere Reserves.

Develop a National/International Knowledge Exchange as a means for sharing experiences, evaluating successful initiatives, and building networks among practitioners and researchers. The European Landscape Convention explicitly encourages this type of cooperation. National exchange can benefit from the Practitioners Network for Large Landscape Conservation designed to share information on science and governance, enhance funding opportunities, and shape federal governmental policy (Practitioners Network for Large Landscape Conservation n.d.). International exchange will benefit from the World Rural Landscapes Initiative launched by the ICOMOS-IFLA International Scientific Committee on Cultural Landscapes to foster worldwide cooperation in the study, management, and protection of rural landscapes (ICOMOS/IFLA International Scientific Committee on Cultural Landscapes n.d.).

2. *Identify agricultural landscapes with historical significance through a comprehensive series of historic context studies and a survey of agricultural landscapes with heritage value.*

Build on unpublished research by Westmacott and colleagues to launch a series of historic context studies. A study on historic orchards demonstrates that national parks can serve as laboratories for in-depth study of cultural landscape history and significance (Dolan 2009). Excellent historic context studies conducted by states including Minnesota and Pennsylvania can serve as another resource. The NPS “National Register Landscape Initiative” may offer an opportunity for reconsideration of agricultural landscapes (NPS National Register Landscape Initiative n.d.).

Initiate a survey of agricultural landscapes with heritage value drawing ideas from landscape inventory and mapping conducted under the European Landscape Convention as well as U.S. mapping of natural systems and high priority conservation areas.

3. *Develop an interdisciplinary conservation research agenda to stimulate foundational studies of agricultural landscapes with heritage values.*

With no single discipline dedicated to understanding the multiple values of working landscapes, it is critical to engage a network of partners in a coordinated multidisciplinary research program and provide ongoing opportunities to share findings, following the example of Europe. This agenda can be developed collaboratively and across disciplines, creating new partnerships between heritage conservation and related fields of land use planning, land conservation, food systems, and rural economic development. The recently adopted United Nations 2030 Sustainable Development Goals can serve as one catalyst for this research agenda (Landscapes for People, Food and Nature Initiative 2015).

4. *Initiate an Agricultural Heritage Policy Review*

A more ambitious undertaking is to review existing national and state rural and agricultural policies and advance revisions to include recognition of heritage values. A policy review would examine the emerging policy shift towards more recognition of multiple benefits of agriculture in the U.S. and make recommendations that draw on lessons learned from rural and agricultural programs and policies in Europe and elsewhere. This review would also explore how U.S. Department of Agriculture and other federal land management agencies, as well as their state counterparts, can incorporate heritage preservation into existing policies and programs, identifying both barriers and future opportunities. It is timely to consider this review in advance of the next U.S. Farm Bill in 2018 (U.S. Department of Agriculture. n.d.).

The idea that agricultural landscapes can be designated and conserved as a heritage resource is relatively new in the U.S. and inherently challenging both here and abroad. In addition to considering the benefits and lessons from designated landscapes, it is also important to consider the heritage values of everyday rural landscapes that depend on engaged communities, are shaped by

policies, and rely on the sustainability of local traditions as well as strategically incorporating innovation. Given the growing importance of food security, agricultural sustainability, climate disruption, and shifts in populations, the time is right to advance a Rural Heritage Agenda that recognizes the full value of our agricultural landscapes.

## NOTES

1. For purposes of this paper, the term "agricultural landscape" refers to an area with productive land uses, including farming and forestry, and is synonymous with "working landscape." "Rural" is used here as a more comprehensive term to include agriculture but also incorporate other livelihoods and related community activities.
2. "Large landscape conservation" refers to large acreages featuring natural and cultural resource systems rather than merely individual resources. "Large landscape conservation" integrates various sectors and disciplines to address opportunities and challenges.
3. See also Billings Farm and Museum and Woodstock Foundation (Woodstock, Vermont) as a partnership example.

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